

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/NL2004/000890

A. CLASSIFICATION OF SUBJECT MATTER

C23C18/32 F16C33/62 F16C33/64 F16C33/30 F16C33/44
F16C33/56 C2507/10 C2505/14

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
C23C F16C C25D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	PATENT ABSTRACTS OF JAPAN vol. 014, no. 526 (C-0779), 19 November 1990 (1990-11-19) -& JP 02 219894 A (TOYOTA MOTOR CORP), 3 September 1990 (1990-09-03) abstract	1-9
Y	PATENT ABSTRACTS OF JAPAN vol. 013, no. 225 (M-830), 25 May 1989 (1989-05-25) -& JP 01 041649 A (RIKEN CORP), 13 February 1989 (1989-02-13) abstract	1-9
X	-/-	10-15

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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O document referring to an oral disclosure, use, exhibition or other means

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T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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Date of the actual completion of the international search

14 February 2006

Date of mailing of the international search report

27/02/2006

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN vol. 014, no. 406 (C-0754), 4 September 1990 (1990-09-04) -& JP 02 153075 A (TOYOTA MOTOR CORP.), 12 June 1990 (1990-06-12) abstract	1-9
A	A.YOSHIDA ET AL: "Influence of soft surface modification on rolling contact fatigue strength of machine element" TRIBOLOGY INTERNATIONAL, vol. 35, no. 12, 2002, pages 837-847, XP002292911 page 838, column 1, paragraph 2 - column 2, paragraph 3	1-9
A	US 4 681 817 A (SHINADA MANABU) 21 July 1987 (1987-07-21) column 6, line 19 - line 33; claim 1	1-9
A	PATENT ABSTRACTS OF JAPAN vol. 018, no. 242 (C-1197), 10 May 1994 (1994-05-10) -& JP 06 025898 A (TOYOTA MOTOR CORP.), 1 February 1994 (1994-02-01) abstract	1
A	PATENT ABSTRACTS OF JAPAN vol. 2003, no. 08, 6 August 2003 (2003-08-06) -& JP 2003 097429 A (TAIHO KOGYO CO LTD), 3 April 2003 (2003-04-03) abstract	1
A	PATENT ABSTRACTS OF JAPAN vol. 015, no. 353 (C-0865), 6 September 1991 (1991-09-06) -& JP 03 138375 A (MITSUBISHI ELECTRIC CORP), 12 June 1991 (1991-06-12) abstract	1
A	PATENT ABSTRACTS OF JAPAN vol. 015, no. 353 (C-0865), 6 September 1991 (1991-09-06) -& JP 03 138374 A (MITSUBISHI ELECTRIC CORP), 12 June 1991 (1991-06-12) abstract	1
A	S.R.LAMPMAN ET AL: "ASM Handbook, Vol 5, Surface Engineering" 1994, ASTM INTERNATIONAL, METALS PARK, OHIO, US, XP002292912 page 326 - page 329	1-11

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Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>DATABASE CA 'Online'</p> <p>CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US;</p> <p>SHINADA, MANABU ET AL: "Wear-resistant cylinder liners and piston rings"</p> <p>XP002367514</p> <p>retrieved from STN</p> <p>Database accession no. 116:239653</p> <p>abstract</p> <p>& JP 03 260089 A2 (RIKEN CORP., JAPAN)</p> <p>20 November 1991 (1991-11-20)</p>	10-15
A	<p>D.N.LAPEDES: "Dictionary of Scientific and Technical Terms"</p> <p>1978, MCGRAW-HILL, US, XP002367510</p> <p>page 1552</p>	10

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International Application No
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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
JP 02219894	A	03-09-1990	JP 1800576 C JP 5009478 B	12-11-1993 05-02-1993
JP 01041649	A	13-02-1989	JP 1605397 C JP 2031219 B	13-05-1991 12-07-1990
JP 02153075	A	12-06-1990	JP 2536107 B2	18-09-1996
US 4681817	A	21-07-1987	DE 3545826 A1	26-06-1986
JP 06025898	A	01-02-1994	NONE	
JP 2003097429	A	03-04-2003	NONE	
JP 03138375	A	12-06-1991	NONE	
JP 03138374	A	12-06-1991	NONE	
JP 3260089	A2	—	—	

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JP 3260089	A2	— — — — — — — — — —	

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